LIST OF CONTENTS

NUMBER 1

G. K. Kostov, P. Charadjiev and N. Christova	1	Polymerization-filling of polytetrafluoroethylene
M. Opalički and H. J. Mencer	5	Estimation of the compatibility of poly(2,6-dimethyl-1,4-phenylene oxide) and poly(fluorostyrene-co-bromostyrene) from dilute solution viscosity measurements
C. Sivriev, L. Żabski and G. Borissov	9	Rigid polyurethane foams with reduced flammability based on new phosphorus- and nitrogen-containing diols
S. Petřík, F. Hadobaš, L. Šimek and M. Bohdanecký	15	Sorption of water vapour by segmented polyurethanes
F. M. B. Coutinho and J. C. A. Martins	19	A study on dodecyl poly(ethylene oxide)–ceric ion initiated emulsion polymerization of styrene in strongly acid medium—II
Norman S. Allen, Michelle Ledward and Gordon W. Follows	23	Photooxidation and photofading of dyed nylon-6,6 film: influence of acid dye concentration and relationship with luminescent species
M. Guibergia-Pierron and G. Sauvet	29	Heterofunctional condensation of alkoxysilanes and silanols—I. Synthesis of definite polysiloxane networks
G. Helary and G. Sauvet	37	Heterofunctional condensation of alkoxysilanes and silanols—II. Synthesis of linear poly(aminoalkylsiloxane)s
Bernabe L. Rivas, Guido S. Canessa and Sonia A. Pooley	43	Co-oligomerization without initiator of α-bromoacrylic acid and 2-oxazoline monomers
Jun-Feng Ding, Hitoshi Kubota and Yoshitaka Ogiwara	49	Effects of diphenylamine and binary sensitizers on photografting of methacrylic acid on low-density polyethylene film
Ryszard Mieczkowski	53	Solubility parameter components of some polyurethanes
Marie-Florence Grenier-Loustalot, Marie-Pierre Bente et Philippe Grenier	57	Réactivité du diméthylcyanamide vis à vis des groupements *O*- et *N*-époxyde et hydroxyle
Ideisan I. Abu-Abdoun and Aale-Ali	73	Cationic photopolymerization of cyclohexene oxide
R. Po′, E. Occhiello and F. Garbassi	79	Computer simulation of non-equilibrium step-growth copolymerization processes
Ivan Fortelný and Josef Kovář	85	Effect of the composition and properties of components on the phase structure of polymer blends
V. N. Tsvetkov, S. V. Bushin, L. N. Andreeva, C. P. Smirnov, E. V. Belyaeva, A. Yu. Bilibin and A. R. Stepanova	91	Hydrodynamic, dynamo-optical and conformational characteristics of molecules of phenyl-substituted *para*-aromatic polyesters
O. V. Nazarova, M. V. Solovskij, E. F. Panarin, V. M. Denisov, A. S. Khachaturov, A. I. Koltsov and A. V. Purkina	97	Copolymerizations of *N*-vinylpyrrolidone and activated esters of unsaturated acids
Andrea Munari, Piero Manaresi, Elena Chiorboli and Antonio Chiolle	101	Dilute solution properties of poly(butylene adipate) and poly(butylene adipate-co-butylene isophthalate)

I. Chodak, I. Chorvath, I. Novak and K. Csomorova	107	Crosslinked low density polyethylene filled with silica—I. The effect of filler on crosslinking
Philip Kurian, K. E. George and D. Joseph Francis	113	Effect of controlled crosslinking on the mechanical and rheological properties of HDPE/LLDPE blends
Corrigenda	117	
Announcement	i	

NUMBER 2

J. C. Bevington	III	Editorial
S. Thamizharasi and A. Venkata Rami Reddy	119	Synthesis and characterization of polymeric Schiff bases and their metal chelates
E. Abuin and E. Lissi	125	Expansion of poly(ethylene oxide) chains upon binding of potassium salts in methanol
Bilge Ozden (Orhan), Jale Hacaloglu and Guneri Akovali	129	Mass spectrometric study on plasma reactions of methyl methacrylate–styrene mixtures
G. I. Bourdygina and P. V. Kozlov	135	Modification of the physico-mechanical properties of gelatin in the coiled conformation
N. Tatizawa and R. Quijada	139	Propene polymerization using Ziegler–Natta catalyst supported on modified magnesium oxide
J. M. G. Cowie, M. D. Fernandez, M. J. Fernandez and I. J. McEwen	145	Blends of poly(styrene-ran-*p*.nitrostyrene) with poly(vinyl methyl ether) and poly(2,6-dimethyl-*p*.phenylene oxide)
Gilbert Friedmann, Yamama Chreim and Jean Brossas	149	Synthesis of organosilicon polymers—I. Silicone and silicon carbide copolymers: synthesis and physical properties
Kiyoshi Endo, Shinya Okayama and Takayuki Otsu	153	Monomer-isomerization polymerization—XXVI. The case of 2-butene in the presence of isobutene with Ziegler–Natta catalyst
K. Azaar, A. El Brouzi, R. Granger and J. M. Vergnaud	159	Effect of temperature on the cure of a sheet of maleic polyester resin heated by oil. Modelling and experiments
Francesco Minto, Marco Scoponi, Luca Fambri, Mario Gleria, Pietro Bortolus and Fiorella Pradella	167	Grafting reactions onto poly(organophosphazenes)—II. Photo-induced graft copolymerization of polymethylmethacrylate onto poly[bis(4-isopropylphenoxy)phosphazene]
M. Galia, J. C. Ronda, A. Mantecón, A. Serra and V. Cádiz	175	Synthesis and oxirane ring-opening polymerization of tetrahydrophthalimide glycidyl derivatives
Tsuyoshi Kiyotsukuri, Minoru Nagata, Tetsuya Kitazawa and Naoto Tsutsumi	183	Synthesis of polymers from α-amino acids by polyaddition
J. Mogín, C. Abradelo, M. F. Rey-Stolle, L. H. Tagle and I. Hernández-Fuentes	187	Partial specific volumes of poly(thiocarbonates) with chlorophenyl or dichlorophenyl side-groups
V. D. Toncheva, S. D. Ivanova and R. S. Velichkova	191	Modified poly(vinyl acetals)

J. S. Shukla and S. K. Dixit 199 Synthesis of some new wholly aromatic heat resistant polyhydrazides as possible polymers for membranes (desalination)

L. P. Razumovskii, V. G. Zaikov, T. V. Druzhinina, M. O. Lyshevskaya and L. S. Gal'braikh 203 Water sorption by graft copolymers of polyamide and poly(*N*,*N*-dimethylaminoethyl methacrylate)

NUMBER 3

G. Georgiev, E. Kamenska, L. Christov, I. Sideridou-Karayannidou, G. Karayannidis and A. Varvoglis 207 (Diacetoxyiodo)benzene and [bis(trifluoroacetoxy)-iodo]benzene as photoinitiators for radical and cationic polymerization

Akikazu Matsumoto, Atsushi Horie and Takayuki Otsu 213 Synthesis of substituted polymethylenes from alkyl cinnamates bearing bulky alkyl ester groups

Daniele C. Bugada and Alfred Rudin 219 Molecular structure and melting behaviour of ethylene–vinyl acetate copolymers

S. Y. Lee, K. Y. Loh, L. S. Leong and S. H. Goh 229 Copolymerizations of tetrahydrofurfuryl methacrylate with styrene and *p*-methylstyrene

Ramiro Guerrero Santos, Jean G. Zilliox, Jean E. Herz and Gerard J. Beinert 233 Synthesis of poly(ethylene oxide) macroinitiators with a view to the preparation of block copolymers by radical polymerization

P. M. Remiro and J. Nazabal 243 Mechanical properties of ternary blends of poly(butylene terephthalate), bisphenol-A-polycarbonate and poly(hydroxyether of bisphenol-A)

C. Rueda-Rodriguez, E. Bourret et L. Bardet 249 Polymérisation de l'acide silicique—II. Etude cinétique

Jerzy Majnusz and Robert W. Lenz 253 Structural effects on the phase behaviour of poly(2-alkyl-1,4-phenylene terephthalate)s

G. Spadaro, E. Calderaro and G. Rizzo 257 Ageing due to gamma-radiation of a crosslinked polyethylene

Javier de Abajo, José G. de la Campa, Hans R. Kricheldorf and Gert Schwarz 261 LC-polyimides—6. Thermotropic poly(ester-imide)s derived from *N*-(4-carboxyphenyl) trimellitimide and various diphenols

Hitoshi Kubota 267 Catalytic activity of *N*-vinylimidazole-grafted polyethylene: effect of method of introduction of grafted chains by means of photografting

Gilbert Friedmann, Yamama Shreim and Jean Brossas 271 Synthesis of organosilicon polymers—II. Norbornadiene/Pt^{II} complex: catalyst in step-polymerization

Julia Krstina, Graeme Moad and David H. Solomon 275 Effects of solvent on model copolymerization reactions. A ^{13}C-NMR study

J. C. Bevington, R. A. Lyons and E. Senogles 283 End-groups in polymers made using dimethyl 2,2′-azobisisobutyrate as a source of radicals

D. Ruhlmann, J. P. Fouassier et W. Schnabel 287 Relations structure–propriétés dans les photoamorceurs de polymérisation—2. Dérivés de phenyl acétophenone

Contents

Ulrich Siemann 293 The solubility parameter of poly(DL-lactic acid)

J. J. Imaz, N. Markaide, M. J. Jurado, M. A. Corcuera and I. Mondragon 299 Rheological characterization of tetraglycidyl 4,4′-diaminodiphenylmethane/m-phenylene diamine systems

A. Sabbahi, J. Bouzon and J. M. Vergnaud 305 Modelling of the drying process of polyurethane foam

A. Senoune and J. M. Vergnaud 311 Preparation of plasticized PVC coatings with low matter transfers by using n-pentane

Maher A. Abu-eid, R. Bruce King and Abraham M. Kotliar 315 Synthesis of polysilane polymer precursors and their pyrolysis to silicon carbides

Sylvie Michaille, Patrick Arlaud et Jacques Lemaire 321 Photolyse et photo-oxydation de polyesters insaturès—1. Comportement du polymaléate de propylène glycol réticulé ou non

Announcement i

NUMBER 4

Kenneth F. O'Driscoll and Brian J. Tabner 333 A spin-trap study of the copolymerization of styrene and vinyl acetate—additional comments

M. Camail, P. Durand, B. Gédoux, A. Margaillan et J. L. Vernet 335 Copolymérisation du méthacrylate de diméthyl tertiobutylsilyle avec le méthacrylate de méthyle

Kimihisa Yamamoto, Naoki Iwasaki, Hiroyuki Nishide and Eishun Tsuchida 341 Electroactive poly(arylene sulphide): electro-oxidative polymerization of 3,5-dimethylthiophenol

P. E. M. Allen, D. J. Bennett and D. R. G. Williams 347 Water in methacrylates—I. Sorption and desorption properties of poly(2-hydroxyethyl methacrylate-co-glycol dimethacrylate) networks

I. N. Shtennikova, E. V. Korneeva, G. F. Kolbina, I. A. Strelina, P. N. Lavrenko, V. P. Shibaev and I. V. Ekaeva 353 Conformational and optical properties of (acetoxypropyl)cellulose molecules in solutions

Masahiro Yoshioka, Yoshinori Sano and Takayuki Otsu 359 Kinetic studies on radical polymerization of dicyclohexyl fumarate with azo initiators

V. L. Rao and P. V. Prabhakaran 363 Polyamides containing arylene, ether and ketone linkages

David Atkinson, Simon Cook and Roy Lehrle 367 Pyrolysis mechanisms deduced from anomalous rate constants for product formation

Sally Groves and Roy Lehrle 373 Pyrolysis mechanisms of natural rubber deduced from the dependence of product yields on sample size

Masamitsu Shirai, Hirotaka Kinoshita and Masahiro Tsunooka 379 Deblocking of poly(4-t-butoxycarbonyloxystyrene) using imino sulphonates as photoacid generators

Yusuf Yağci, Ivan Kminek and Wolfram Schnabel 387 Photochemical cationic polymerization of cyclohexene oxide in solution containing pyridinium salt and polysilane

D. J. T. Hill, A. P. Lang, P. D. Munro and J. H. O'Donnell 391 The effect of solvent on the styrene–acrylonitrile copolymerization

Contents

Manit Rappon, Raymond T. Syvitski and Amarin Chuenarm 399 Photo-induced reaction of dye in polymer media—II. Annealed polymer matrices

Guo Qipeng, Huang Jinyu, Ge Liaohai and Feng Zhiliu 405 Phase separation in anhydride-cured epoxy resin containing phenolphthalein poly(ether ether ketone)

M. Hassanein, El-Saied A. Aly, Y. A. Abbas and Samia M. El-Sigeny 411 Preparation of poly(methyl methacrylate) based resins with bound chromium (VI) reagents and their use as oxidizing agents

E. F. Okieimen and F. Egharevba 415 Graft copolymerization of methyl acrylate on dextrin

Alok Kumar Tyagi, Veena Choudhary and I. K. Varma 419 Copolymerization of methyl methacrylate and a novel allyl monomer

Alok Kumar Tyagi, Veena Choudhary and I. K. Varma 423 Copolymerization of methyl methacrylate and urethane methacrylate—II

A. M. Riquet, N. Wolff et A. Feigenbaum 427 Comportement de sondes paramagnétiques dans le PVC sous forme de résine, compound ou plaques étude par spectroscopie de RPE

N. V. Desai and K. R. Desai 435 Synthesis and properties of homo- and copolycyanurates

John A. Mikroyannidis 439 Unsaturated heat-curable polyamides and polyimides derived from 2,6-bis(3-aminobenzylidene)-cyclohexanone

NUMBER 5

M. C. V. Amorim and C. M. F. Oliveira 449 Poly(methyl methacrylate)-graft-[poly(ethylene oxide); poly(propylene oxide)]—1. Synthesis and characterization

A. Akelah, E. R. Kenawy and D. C. Sherrington 453 Agricultural polymers with a combined herbicide/fertilizer function—I. Tartrate-based systems

W. Marconi, P. Barontini, A. Martinelli and A. Piozzi 465 Synthesis of hydroxylated segmented polyurethanes

M. V. Encinas, E. A. Lissi and J. Quiroz 471 2′,2′-Azobis(2-amidinopropane) as a photoinitiator of vinyl pyrrolidone polymerization in aqueous solution

V. Baranovsky, S. Shenkov, I. Rashkov and G. Borisov 475 Nonspecific interactions in polymer–polymer reactions—4. Complex formation between polyacrylic acid and monosubstituted poly(ethylene glycol)s

Guo Qipeng, Qiu Lingwei, Ding Mengxian and Feng Zhiliu 481 Tensile properties of blends of phenolphthalein poly(ether ether ketone) with a poly(ether imide)

V. Folliot, J. C. Soutif et J. C. Brosse 485 Synthèse de molécules chélatantes pour une utilisation en imagerie médicale—1. Etude sur molécules simples

C. F. Cullis, M. M. Hirschler and R. G. Madden 493 Studies of the effects of phosphorus and its compounds on the combustion of cellulose

J. M. Widmaier and M. T. Tabka 499 Sequential interpenetrating polymer networks: heterogeneity of the first network and final structure

Costas G. Delides, David Hayward, Richard A. Pethrick and Argyris S. Vatalis 505 Real time dielectric investigations of phase separation and cure in rubber modified epoxy resin systems

Finizia Auriemma, Vincenzo Busico, Paolo Corradini and Marco Trifuoggi 513 A reinvestigation of β-$TiCl_3$—I. Preparation and structural characterization

Vincenzo Busico, Paolo Corradini, Luigi De Martino and Marco Trifuoggi 519 A reinvestigation of β-$TiCl_3$—II. Catalytic activity in propene polymerization

B. Strehmel, V. Strehmel, H.-J. Timpe and K. Urban 525 Time-resolved fluorescence measurements for the characterization of epoxy systems

S. Laoubi, J. Bouzon and J. M. Vergnaud 535 Kinetics of absorption of toluene by coatings made of epoxy resin; modelling and experiments

Juozas V. Gražulevičius, Rimantas Kublickas and Algimantas Undzėnas 539 Polymerization of 3,6-dibromo-9-(2,3-epoxypropyl)-carbazole with triphenylcarbenium salts

J. Thanuja and M. Srinivasan 547 Synthesis and characterization of some polyazo-(amide-imide)s

K. Miklešová and F. Szőcs 553 Free-radical decay in a polymer blend PMMA/PEO studied by the EPR method

A. A. Mahmoud, A. F. Shaaban, M. M. Azab and N. N. Messiha 555 Organotin polymers—XVI. Synthesis of *p*-acryloyloxybenzoic acid and *N*-methacryloyloxytetrabromophthalimide and copolymerizations with tri-n-butyltin acrylate and methacrylate

B. Srinivasulu, P. Raghunath Rao and E. V. Sundaram 561 Characterization of copolymers of *N*,*N*-dimethylacrylamide with methyl methacrylate prepared by charge transfer mechanism

NUMBER 6

Dong Il Kang, Chang Sik Ha and Won Jei Cho 565 Effects of blended polychloroprene on the properties of ABS or AES

Takao Iijima, Naoto Yoshioka and Masao Tomoi 573 Effect of cross-link density on modification of epoxy resins with reactive acrylic elastomers

Wen-Yen Chiang and Chi-Yuan Huang 583 Polyacetal/polytetrafluoroethylene blends—II. The effect of chemical surface treatment of polytetrafluoroethylene

D. Ruhlmann, F. Wieder et J. P. Fouassier 591 Relations structure–propriétés dans les photoamorceurs de polymérisation—3. Etats excités de morpholino- et d'amino-cétones substituées

Mekki El Alaoui, Yassa Daoudi, Jean Pierre Busnel et Alain Pleurdeau 601 Obtention par cooligomérisation de nouveaux agents protecteurs anti-u.v. des matériaux macromoléculaires

J. R. Allan, B. R. Carson, D. L. Gerrard and J. Birnie 609 The performance of europium complexes as pigments for polystyrene

Helmut Keul, Thomas Vahlenkamp and Hartwig Höcker 611 Cyclic oligomers obtained by polymerization of 2,2-dimethyltrimethylene carbonate in the presence of ϵ-caprolactam

Contents

E. R. Kenawy, A. Akelah and D. C. Sherrington — 615 Agricultural polymers with herbicide/fertilizer function—II. Glutarate-based systems

J. M. G. Cowie and Elisa M. Elexpuru — 623 Blends of poly(α-methylstyrene-*stat*-acrylonitrile) with poly(alkyl acrylate)s, poly(alkyl methacrylate)s, poly(di-alkyl itaconate)s and alkyl methacrylate copolymers

K. Azaar, A. El Brouzi, R. Granger and J. M. Vergnaud — 629 Regulation of the process of cure of thermosets by varying the coefficient of surface heat transfer

Zoran S. Petrović, James Ferguson, Nick Hudson, Ivan Javni and Marija Vraneš — 637 The effect of hard segment structure on rheological properties of solutions of segmented polyurethanes

L. D'Ilario, A. Martinelli and A. Piozzi — 643 Poly(*p*-phenylene sulphide) single crystals: electrical properties of the pristine and doped polymer

Norman S. Allen, Deborah Mallon, Irini Sideridou, Arthur Green, Alan Timms and Fernando Catalina — 647 Photochemistry and photopolymerization activity of a novel 3,4-dimethyl-2-(3-*N*,*N*-dimethylamino-propoxy)thioxanthone initiator

Richard G. Jones, R. Harry Cragg and Anthony C. Swain — 651 Structure and mechanism in the cyclopolymerization of diallylsilanes

S. H. Goh, K. S. Siow and S. Y. Lee — 657 Miscibility of poly(tetrahydrofurfuryl methacrylate) with poly(styrene-co-acrylonitrile) and poly(*p*-methylstyrene-co-acrylonitrile)

S. H. Goh, S. Y. Lee and S. M. Low — 661 Miscibility of tetramethylbisphenol-A polycarbonate with poly(styrene-co-tetrahydrofurfuryl methacrylate) and with poly(*p*-methylstyrene-co-tetrahydrofurfuryl methacrylate)

C. Fernandez-Sanchez, J. M. Muñoz and J. G. Rodriguez — 667 Ziegler–Natta polymerization of 2-vinylpyridine with $AlEt_3$–VCl_3. Influence of nicotine as donor ligand

Hamid Tbal, Michele Delporte, Joëlle Morcellet and Michel Morcellet — 671 Functionalization and chelating properties of a porous polymer derived from vinylamine

G. A. Egorochkin, Yu. D. Semchikov, L. A. Smirnova, N. V. Karyakin and A. M. Kut'in — 681 Thermodynamics of mixing of some vinyl monomers. On the possibility of predicting deviations from the classical scheme of copolymerization

A.-F. de Mahieu, D. Daoust, J. Devaux and M. de Valck — 685 Poly(methylphenyl)silane: the molecular weight dependence of the u.v. absorption maxima wavelengths

E. Tashev, L. Zabski, S. Shenkov and G. Borissov — 689 Phosphorus-containing rigid polyurethane foams—II. Modifiers based on trimethyl phosphate

Fernanda M. B. Coutinho, Thais H. S. Costa, Luiz C. Santa Maria and Romeu Pereira — 695 Influence of the method of synthesis on the properties of $TiCl_3$

B. R. White and G. J. Vancso — 699 Diffusion average molar mass of polydisperse polymers: a photon correlation spectroscopy study of polystyrene in a good and a theta solvent

Beniamino Pirozzi and Roberto Napolitano — 703 Conformational analysis of the polymorphic forms of syndiotactic polypropylene in the crystalline field

Announcements — i

NUMBER 7

Kazumichi Imasaka, Kozo Takayama, Masaru Yoshida, Hideki Omichi and Tsuneji Nagai	709	A new attempt to design erodible terpolymers using computer-optimization methodology
Jin-San Yoon, Kye-Li Kim, Kye-Hwan Lee and Sung-Jae Maing	713	Diffusion coefficient and solubility of vinyl acetate molecules in poly(vinyl acetate) matrices
Yusuf Yagci, Metin Hayri Acar and Anthony Ledwith	717	Synthesis and reactions of polymers with photoactive terminal groups—4. The use of oxocarbenium polymerization for the synthesis of poly(α-methylstyrene) with *N*-acyl dibenz[b,f]azepine terminal units
Aysen Onen and Yusuf Yagci	721	Photo-initiated cationic polymerization of cyclohexene oxide using photosensitive polymers having benzoin side-groups in the presence of pyridinium salt
J. W. Qian and A. Rudin	725	Prediction of thermodynamic properties of polymer solutions
J. W. Qian and A. Rudin	733	Prediction of hydrodynamic properties of polymer solutions
Nigel P. Briggs, Peter M. Budd, Colin Price and Ian D. Robb	739	The synthesis and solution properties of statistical and block copolymers of 2-vinyl pyridine and acrylic acid
P. M. van Berkel, P. D. Verweij, W. L. Driessen, J. Reedijk and D. C. Sherrington	747	Metal uptake by didentate and tridentate pyrazole-containing ligands immobilized onto poly(glycidyl methacrylate-co-ethylene glycol dimethacrylate)
Q. Y. Liang, K. G. Neoh, E. T. Kang, K. L. Tan and H. K. Wong	755	Charge transfer interactions in bithiophene–pyrrole and bithiophene–aniline copolymers
Z. G. Mitov and R. S. Velichkova	765	Modification of styrene–isoprene copolymers—1. End-terminated products
Z. G. Mitov and R. S. Velichkova	771	Modification of styrene–isoprene copolymers—2. Chain extension with ethylene oxide
G. O. Shonaike	777	Studies on miscibility of glass fibre reinforced blends of polyethylene terephthalate with polybutylene terephthalate
Ay-Ling Liang, Keh-Ying Hsu and Teh-Chou Chang	783	Studies on thermotropic liquid crystalline polymers—V. Synthesis and properties of poly(ether amide)s
N. Hurduc, V. Bulacovschi and C. Simionescu	791	Phase transfer catalysis of polycondensation processes—III. Liquid-crystalline properties of polyethers with oxetane pendant groups
I. Kraicheva, S. Varbanov and G. Borisov	795	Addition products of dialkyl phosphites with a Schiff base as components increasing the combustion resistance of polymers
J. Pavlinec	799	Styrene polymerization in silica gel porous grains
A. S. Brar and Sunita	803	Sequence determination of acrylonitrile–(ethyl acrylate) copolymers by ^{13}C-NMR spectroscopy and correlation with glass transition temperature

A. Bakhouya, A. El Brouzi, J. Bouzon and J. M. Vergnaud 809 Process of absorption of a liquid by a thin sheet of polymer by considering diffusion and change in dimension

Norman S. Allen, Hassan Khatami and Frank Thompson 817 Influence of titanium dioxide pigments on the thermal and photochemical oxidation of low density polyethylene film

S. J. Clarson, J. E. Mark, C.-C. Sun and K. Dodgson 823 Effect of bimodal chain length distribution on the thermal characteristics of poly(ethylene oxide) end-linked networks

Jiang Bo and Xiang Ming 827 Immobilization of enzymes on polymers modified by ultrasonic irradiation

Ning Yao, Xiaoding Li, Yaohui Li, Xiaowan Nu and Hong-Quan Xie 831 WAXS investigations of the crystallinities in copolymers related to poly(ethylene oxide)

Naeem M. El-Sawy, M. A. Abd El-Ghaffar, El-Sayed A. Hegazy and Ahmed Dessouki 835 Physical properties of graft copolymer–metal complexes obtained by radiation grafting onto poly(tetrafluoroethylene-co-perfluorovinyl ether)

NUMBER 8

E. R. Kenawy, D. C. Sherrington and A. Akelah 841 Controlled release of agrochemical molecules chemically bound to polymers

E. L. Madruga and J. J. Malfeito 863 Effect of chain transfer agent and the reaction medium on the limiting conversion of methyl methacrylate free radical polymerization

Bibekananda Das and Tanmoy Gangopadhyay 867 Natural rubber–poly(methyl methacrylate) interpenetrating polymer networks—morphology and mechanical properties

Marc J. M. Abadie et Démosthène Sakkas 873 Etude cinétique de la réticulation du polyester isophtalique insaturé par DSC—I. Etude isotherme

Ya Jiang Yang and Jan B. F. N. Engberts 881 Preparation and stability of polystyrene latexes using polysoaps as emulsifiers

Hans R. Kricheldorf and Dierk Lübbers 887 Polyanhydrides—3. Thermotropic poly(ester-anhydride)s of 2,5-bis-alkoxyterephthalic acids and unsubstituted comonomers

K. Witkowski, E. Kuteń and L. Woliński 895 Interactions in macromolecular solutions manifested by the mobility of solvent molecules in the low-frequency Raman range

M. V. Kozlovsky, K. Fodor-Csorba, L. Bata and V. P. Shibaev 901 Chiral smectic side-chain copolymers—I. Synthesis and phase behaviour

M. V. Kozlovsky, S. G. Kononov, L. M. Blinov, K. Fodor-Csorba and L. Bata 907 Chiral smectic side-chain copolymers—2. Pyroelectric effect and spontaneous polarization

J. Lorente, C. Marco, M. A. Gomez and J. G. Fatou 911 Kinetics of the phase transition in liquid crystalline poly(alkyl terephthaloyl bis-(4-oxybenzoate))s

G. Bauduin, Y. Pietrasanta, A. Rousseau, D. Granier-Azema, D. Bosc et M. Guilbert 923 Etude par DSC de la polymérisation en masse des méthacrylates de méthyle et de pentafluorophényle

Bernard Boutevin, Jean-Pierre Parisi et Philippe Vaneeckhoutte 929 Synthése de composés photoréticulables—10. Synthése de cotélomères à base d'anhydride maléïque et leur insaturation par des derives acryliques

Contents

N. Alberola, J. Y. Cavaille and J. Perez	935	Mechanical γ and β relaxations in polyethylene—I. Glass transitions of polyethylene
N. Alberola, J. Y. Cavaille and J. Perez	949	Mechanical γ and β relaxations in polyethylene—II. Physical models of the mechanical γ relaxation in polyethylene
V. N. Tsvetkov, S. V. Bushin, L. N. Andreeva, C. P. Smirnov, E. V. Belyaeva, E. P. Astapenko, A. Yu. Bilibin, A. V. Tenkovtsev and A. R. Stepanova	955	Hydrodynamic, optical and conformational properties of molecules of aromatic polyesters containing 3,3′-biphenylene fragments in the main chains
Natalia Gospodinova, Levon Terlemezyan, Marin Mihailov, U. Men Han and Kim Ben Du	961	Microstructure of ethylene–(vinyl acetate) copolymers prepared by emulsion copolymerization
María Jesús Fernández, M. D. Fernández, G. M. Guzmán✝, R. Montiel and V. M. Castaño	969	Graft copolymerization of vinyl acetate and methyl acrylate onto cellulose by ceric ion initiator system: study of the crystallinity
I. Goñi, M. Gurruchaga, B. Vazquez, M. Valero and G. M. Guzmán✝	975	Synthesis of graft copolymers of acrylic monomers on amylose: effect of reaction time
M. T. Margeli, M. B. Vázquez, M. Valero and G. M. Guzmán✝	981	Effect of acetonitrile as cosolvent on the grafting of methyl methacrylate onto amylose
F. M. B. Coutinho, M. J. O. C. Guimarães and A. L. N. Silva	985	Study of (aluminium chloride)/α,α,α-benzotrichloride/toluene homogeneous initiating system for the polymerization of turpentine
Marie-Florence Grenier-Loustalot, Marie-Pierre Bente et Philippe Grenier	987	Etude de la réactivité de la cyanamide vis à vis des groupements *O*- et *N*-époxydes
Michael J. Hudson and Billy Kar-On Leung	1001	Synthesis and characterization of a copolymer with pendant weak base groups suitable for the separation of gold(III) from base metals in chloride media
R. Gref, Q. T. Nguyen, J. Rault et J. Néel	1007	Etats des solvants absorbés dans des films semi-cristallins en alcool polyvinylique—I. Gonflement dans l'eau
R. Gref, Q. T. Nguyen, J. Rault et J. Néel	1015	Etats des solvants absorbés dans des films semi-cristallins en alcool polyvinylique—II. Gonflement dans des mélanges eau–éthanol

NUMBER 9

K. Chan, T. Hirotsu and T. Hatakeyama	1021	DSC studies on bound water in polypropylene films plasma-grafted with 2-hydroxyethyl acrylate and acrylic acid or methacrylic acid
Zhang Linxi and Xia Agen	1027	Unperturbed chain dimensions of polysilane in the third-order interaction approximation
E. I. Rjumtsev, I. N. Shtennikova, D. R. Tur, G. F. Kolbina, E. V. Korneeva and V. G. Kulichikhin	1031	Electric and dynamic birefringence in solutions of poly-bis-trifluoroethoxyphosphazene
B. Tamami and N. Goudarzian	1035	Poly(vinylpyridine *N*-oxide) supported dichromates as new effective, mild and versatile oxidizing reagents for various organic compounds

Contents

F. Mahmud, M. Atiqullah, N. Jarrah and I. Hussain	1039	Measurement of shape and size distributions of PVC resin particles by scanning electron microscopy and image analysis
Guo Qipeng, Qiu Lingwei, Ding Mengxian and Feng Zhiliu	1045	Tensile properties of blends of poly(ether sulphone) with a poly(ether imide)
Guo Qipeng	1049	Miscibility of poly(*N*-vinyl-2-pyrrolidone) with poly(ether sulphone) and two phenolphthalein-based polymers
Constantinos D. Diakoumakos and John A. Mikroyannidis	1053	Synthesis and characterization of poly(imidine-amides)
D. Ruhlmann, K. Zahouily et J. P. Fouassier	1063	Relations structure–propriétés dans les photo-amorceurs de polymérisation—4. Les photo-amorceurs copolymérisables
Minoru Nagata and Tsuyoshi Kiyotsukuri	1069	Nylon-6 copolymers: copolymerization with α-amino acids
M. Hassanein	1073	Preparation and synthetic application of poly(4-vinylpyridine) based resins with bound nucleophilic reagents
Marie-Florence Grenier-Loustalot, Marie-Pierre Bente et Philippe Grenier	1077	Etude de la réactivité de la mélamine vis à vis des groupements *O*- et *N*-époxydes
K. Azaar, A. El Brouzi, R. Granger and J. M. Vergnaud	1095	Regulation of the process of cure of thermosets by varying the temperature of the mould
Takanori Kobayashi, Moriyuki Sato, Noboru Takeno and Ken-ichi Mukaida	1105	Synthesis and liquid crystallinity of thermotropic polycarbonate–polystyrene graft copolymers
F. M. B. Coutinho and C. R. G. Furtado	1111	The emulsion polymerization of methyl methacrylate initiated by Ce(IV)/dodecyl poly(ethylene oxide) redox system
A. A. Mahmoud	1115	Organotin polymers—XVIII. Azeotropy in binary and ternary copolymerizations of di-(tri-n-butyltin) itaconate with methyl acrylate, methyl methacrylate, styrene and *N*-vinyl-2-pyrrolidinone
D. Madheswari, S. Nanzundan and A. Venkata Rami Reddy	1123	Copolymers of *p*-biphenyl acrylate with methyl methacrylate: synthesis, characterization and monomer reactivity ratios
Michael G. Siskos, Efthymios P. Bokaris, Antonios K. Zarkadis and Georgia Kyriakakou	1127	Polymerization of phenylacetylene by hafnocene dichloride/R_xAlCl_{3-x} catalytic systems
Yue Zhao	1131	An analysis of the orientational birefringence of poly(methyl methacrylate) in terms of the Mooney–Rivlin equation
C. Salom, M. G. Prolongo, R. M. Masegosa, J. Baselga and A. Guemes	1135	Rubber-modified epoxy resins cured with piperidine
Masaru Yoshida, Hideki Omichi and Ryoichi Katakai	1141	Light-scattering study of temperature-responsive poly(acryloyl-L-proline methyl ester)
E. Štaudner, G. Kyselá, Z. Turayová, E. Slyšková and M. Briššová	1147	Infrared spectrophotometry of maleic anhydride terpolymers

NUMBER 10

J. Mazan, B. Leclerc, H. Porte, G. Torres and G. Couarraze	1151	Influences of silica and the macromolecules on progesterone diffusion in a polydimethylsiloxane network
J. R. Allan and B. R. Carson	1155	A study of the performance of some first row transition metal complexes of 2-phenyl-4-quinoline carboxylic acid as colouring materials for poly(vinyl chloride) and polystyrene
M. M. Marugán, E. Pérez, R. Benavente, A. Bello and J. M. Pereña	1159	Solubility parameters of thermotropic polybibenzoates with various spacers
A. L. Segre, D. Capitani, P. Fiordiponti, P. L. Cantini, A. Callaioli, A. Ferrando and R. Nocci	1165	Interface in styrene–butadiene copolymers and blends: a solid state ^{1}H-NMR study
P. E. M. Allen, D. J. Bennett and D. R. G. Williams	1173	Water in methacrylates—II. Dynamic mechanical properties of swollen poly poly(2-hydroxyethyl methacrylate-co-glycol dimethacrylate) networks
P. E. M. Allen, D. J. Bennett, A. M. Hounslow and D. R. G. Williams	1179	Water in methacrylates—III. A CPPEMAS ^{13}C-NMR study of the effect of water on group motion in poly(2-hydroxyethyl methacrylate) copolymer networks
Ludovic Janus, Joelle Morcellet, Michèle Delporte and Michel Morcellet	1185	Linear and crosslinked copolymers of vinylamine with vinyl pyrrolidone or methyl methacrylate. Chelation of copper
Henk J. Haitjema, Gert O. R. Alberda van Ekenstein and Y. Yong Tan	1191	The liquid–crystalline monomer *N*-(*p*-methacryloyloxy-benzylidene)-*p*-aminobenzoic acid: its synthesis, characterization and polymerization
A. Bergeret, A. Agbossou, N. Alberola, P. Cassagnau and T. Sarraf	1201	Micromechanical properties of random copolymers of styrene with methacrylic acid. Experimental and theoretical approaches
Satoshi Ishikawa, Koji Ishizu and Takashi Fukutomi	1219	Microphase separation and crystallization of crystalline–amorphous type block copolymer—2. Microstructure of crystalline part
V. Bertini, M. Pocci, N. Picci, A. De Munno and F. Lucchesini	1225	Synthesis of functionalized benzenesulphonyl monomers, polymers and copolymers designed for the selective flocculation of aqueous smithsonite dispersions
Ahmed A. Kassem, El-Sayed M. E. Mansour, H. Nour El-Din, Ahmed A. El-Toukhy and Sherif H. Kandil	1231	Study of the thermal stabilities of some polymeric Schiff-bases containing sulphur
Gerard Bauduin, Bernard Boutevin and Fouad Malek	1237	Copolymerization of chloromethylstyrene and maleic anhydride: an example for testing a new method to determine reactivity ratios
M. Mouzali, J. Lacoste et M. J. M. Abadie	1241	Synthèse de copolymères styrène/isoprène/styrène α,ω-diépoxydés: propriétés adhésives
Ridha Oueslati et Hamed Bahri	1247	Contribution des facteurs morphologiques et structure chimique dans la rétention de sondes paramagnétiques dans la fibre de polypropylène ozonisée
Hans R. Kricheldorf, Angelika Domschke and Sigrid Böhme	1253	LC-Polyimides—8. Thermotropic poly(ester-imide)s from *N*-(4-carboxyphenyl)-4-nitrophthalimide

Zhenhua Sun, Wei Wang and Zhiliu Feng	1259	Criterion of polymer–polymer miscibility determined by viscometry
Ramiro Guerrero Santos, Philippe R. Chaumont, Jean E. Herz and Gérard J. Beinert	1263	Radical polymerization of styrene initiated by poly(ethylene oxide) macroinitiators
V. K. Gupta, S. Satish and I. S. Bhardwaj	1269	Magnesium dichloride supported titanium catalyst system: dimethoxypropane as an external Lewis base
G. Kister, G. Cassanas, F. Fabrègue and L. Bardet	1273	Vibrational analysis of ring-opening polymerizations of glycolide, L-lactide and D,L-lactide
Pavol Hrdlovič and Katarína Srnková	1279	Emission of triplet probes in polymer matrices; monoketones of benzophenone type
Jayamma Francis, K. E. George and Rani Joseph	1289	Chemical modification of blends of poly(vinyl chloride) with linear low density polyethylene
B. Hazer, I. Çakmak, S. Küçükyavuz and T. Nugay	1295	Synthesis of block copolymers via anion-to-radical transformation
Josée Brisson, Marie-Claude Guimond and Bernard Riedl	1299	Characterization of cellulose/aromatic nylon blends prepared from MMNO solutions
Önder Pekcan	1303	Matrix effect on fluorescence lifetimes in blend like polymer particles
N. S. Allen, John P. Hurley, David Bannister and Gordon W. Follows	1309	Photochemical crosslinking of nylon-6,6 induced by 2-substituted anthraquinones
C. Peinado, F. Catalina, T. Corrales, R. Sastre, F. Amat-Guerri and N. S. Allen	1315	Synthesis of novel 2-(3′-dialkylaminopropoxy)-thioxanthone derivatives. Photochemistry and evaluation as photoinitiators of butyl acrylate polymerization

NUMBER 11

D. Shailaja and M. Yaseen	1321	Controlled release from PVC matrices: effect of four phthalate plasticizers on diffusion of THF
Takayuki Otsu, Masahiro Yoshioka and Takayuki Tanaka	1325	Synthesis of telechelic polymers through radical polymerization with a two-component iniferter system
M. Suchopárek, J. Dybal and J. Spěváček	1331	Characterization of the conformational structure of t-butyl acrylate oligomers and polymers by infrared and NMR spectroscopy and computational methods
Zhou Zhiping, Xu Jianmin, Song Xubing and Yan Deyue	1339	Calculation of the mean-square radius of gyration for polymer chains with side-groups
Moriyuki Sato, Tetsuya Ito, Takanori Kobayashi and Ken-ichi Mukaida	1345	Synthesis and mesogenic properties of polyurethanes containing a naphthalene ring
Osman Yilmaz, Ali Usanmaz and Kemal Alyürük	1351	A mechanistic study on the polymerization of n-butyl isocyanate by Pruitt–Baggett adduct
T. Sato, S. Shimooka, M. Seno and H. Tanaka	1357	Radical polymerization of *ortho*-formylphenyl crotonate involving intramolecular hydrogen-abstraction

Contents

L. Daniliuc, C. De Kesel and C. David 1365 Intermolecular interactions in blends of poly(vinyl alcohol) with poly(acrylic acid)—1. FTIR and DSC studies

Toshio Suzuki and Itaru Mita 1373 Synthesis and properties of silethynylene–siloxane alternating copolymers

Hans R. Kricheldorf and Olaf Stöber 1377 New polymer syntheses—63. Polycondensations of silylated imidazolidone-2 and benzimidazolidone-2

P. Benoist, G. Legeay, R. Morello et F. Poncin-Epaillard 1383 Preparation de surfaces de polymères par plasma froid pour metallisation par galvanochimie

Guo Qipeng 1395 Miscibility of poly(hydroxyether of phenolphthalein) with poly(ether sulphone)

N. Manolova, M. Ignatova and I. Rashkov 1399 Preparation and properties of poly(ethylene glycol) esters of 1-naphthylacetic acid and 2,4-dichlorophenoxyacetic acid

S. H. El-Hamouly, S. A. El-Kafrawi and N. N. Messiha 1405 Binary copolymerizations of *N*-antipyryl acrylamide with methyl methacrylate, butyl methacrylate, acrylonitrile and vinyl acetate

Won Ho Jo, Ick Hwan Kwon, June Huh and Chung Yup Kim 1411 Ester interchange reactions in polyester: a Monte Carlo simulation approach

Hong Man Park and Wha Young Lee 1417 The effect of triethylaluminium treatment on a Ziegler–Natta catalyst supported on magnesium chloride prepared by a recrystallization method, for propylene polymerization

Felix E. Okieimen and Justus E. Ebhoaye 1423 Thermal dehydrochlorination of PVC in the presence of metal soaps derived from rubber seed oil

V. Yu. Baranovsky, I. V. Kotlyarsky, V. S. Etlis and V. A. Kabanov 1427 Template polymerization of methacrylic acid in the presence of poly(ethylene glycol) and poly(*N*-vinylpyrrolidone) in benzene

M. Patnaik, V. Choudhary and I. K. Varma 1433 Structural and thermal characterization of methyl methacrylate/alkyl acrylate copolymers

Efthymios P. Bokaris, Michael G. Siskos and Antonios K. Zarkadis 1441 Cationic transannular polymerization of 1,5-cyclooctadiene by Cp_2MCl_2 (M = Ti, Zr or Hf) Ziegler–Natta catalysts with Et_3Al, Et_2AlCl and $Et_3Al_2Cl_3$ as cocatalysts

Bernabé L. Rivas, Guadalupe del C. Pizarro and Guido S. Canessa 1445 Copolymerization without initiator of β-methylhydrogen itaconate with 2-methyl-2-oxazoline

Sabu Thomas and Anne George 1451 Dynamic mechanical properties of thermoplastic elastomers from blends of polypropylene with copolymers of ethylene with vinyl acetate

Corrigenda 1459

NUMBER 12

Zuen Hui and Alessandro Gandini 1461 Polymeric Schiff bases bearing furan moieties

M. C. Chen, D. J. Hourston and W. B. Sun 1471 Miscibility and fracture behaviour of an epoxy resin–bisphenol-A polycarbonate blend

Contents

S. H. Goh, S. Y. Lee and M. L. Chay	1477	Poly(acrylonitrile-co-tetrahydrofurfuryl methacrylate): copolymerization behaviour and miscibility with polystyrene and with poly(*p*-methylstyrene)
Jadwiga Matuszewska-Czerwik and Stefan Połowiński	1481	Template photopolymerization of methacrylic acid in water—V. Low molecular weight templates
C. Marega, A. Marigo, R. Zannetti and G. Paganetto	1485	A structural investigation on poly(glycolic acid)
K. J. Kim, Y. S. Ok and B. K. Kim	1487	Crosslinking of polyethylene with peroxide and multifunctional monomers during extrusion
Franco Cataldo	1493	Preparation and structure of chlorinated and brominated derivatives of polyphenylacetylene
Olivia Beaune, Jean-Marie Bessiere et Bernard Boutevin	1501	Etude de la copolymérisation accepteur–donneur de quelques couples maléimides/éthers vinyliques
B. Boutevin, J. J. Robin and A. Serdani	1507	Synthesis and applications of graft copolymers from ozonized poly(vinylidene fluoride)—II
B. Boinon, J. Brigui et J. P. Monthéard	1513	Nouveaux esters d'énols styréniques: polymérisation, copolymérisation et étude du comportement thermique
V. S. Kishanprasad and P. H. Gedam	1521	Synthesis of air-drying polyesterimides using imidodicarboxylic acids as functional monomers
C. P. Reghunadhan Nair	1527	Macromonomers via free radical chain transfer; some aspects of their syntheses and kinetic prediction of functionality
F. Catalina, C. Peinado, J. L. Mateo, P. Bosch and N. S. Allen	1533	Polymeric photoinitiators based on thioxanthone: photochemistry and free radical photoinitiation study by photodilatometry of the polymerization of methyl methacrylate
Takao Iijima, Noriyuki Arai, Ken-ichi Takematsu, Wakichi Fukuda and Masao Tomoi	1539	Toughening of epoxy resins by *N*-phenylmaleimide–styrene copolymers
I. Janigová, I. Chodák and I. Chorváth	1547	The influence of crosslinking on isothermal crystallization of LDPE filled with silica
F. M. B. Coutinho and D. Rabelo	1553	Scanning electron microscopy study of styrene–divinylbenzene copolymers
A. Senoune and J. M. Vergnaud	1559	Preparation of plasticized PVC packagings with low matter transfers in n-hexane by using a pre-immersion in methanol
A. Senoune and J. M. Vergnaud	1563	Plasticized PVC with low matter transfers prepared by pre-immersing in n-hexane and testing in methanol
David Atkinson and Roy Lehrle	1569	A model polymer-bound antioxidant system for lubricants
D. Ruhlmann, J. P. Fouassier et F. Wieder	1577	Rélations structure–propriétés dans les photoamorceurs de polymérisation—5. Effet de l'introduction d'un groupement thioéther
A. Siove and D. Ades	1583	Comparative two-dimensional NMR analysis of poly(*N*-butyl-3,6-carbazolylene), poly(*N*-vinylcarbazole) and model compounds

Contents

N. Hurduc, Gh. Surpateanu and V. Bulacovschi	1589	Phase transfer catalysis of polycondensation processes—V. Internal rotation energies in polyethers based on oxetane and bisphenol-A
Andrzej W. Trochimczuk and Bożena N. Kolarz	1593	The influence of phase-transfer catalysts on alkaline hydrolysis of acrylonitrile–divinylbenzene copolymers
A. Mohammed Farooque and Dinkar D. Deshpande	1597	Characterization of polyetherpolyurethane by inverse gas chromatography

Reproduced with the permission of Pergamon Press Inc., by University Microfilms Inc. Duplication or resale without permission is prohibited.